
FULL RECOGNITION OF THE VALUE OF SALMON AND STEELHEAD TROUT

*Salmon and steelhead trout
provide significant economic
benefits for California...*



PHOTO: NATIONAL MARITIME MUSEUM

*Salmon and steelhead have contributed mightily to the
state's economy and they will again as their true
value is recognized.*



PHOTO: PETER PALMQUIST COLLECTION

California businesses will receive \$150 million a year from salmon and steelhead restoration.

Economics provide full and fair consideration

Economics have been used to bolster arguments for the investment of literally billions of dollars in California's two major, tax-supported water development schemes, the federal Central Valley Project and the State Water Project. Since the advent of the Central Valley Project in the mid-1930's, "welfare economics" — the idea that all public investment that creates new economic activity is "in the public interest" — has driven all of California's major river-damming decisions.

An elaborate body of dam building economic concepts and procedures have been utilized to show the value of irrigation, flood control and hydroelectric generation. Salmon and steelhead also provide significant economic benefits to society; however, *in most project decision making, no economic values have been given to downstream fish life.* This resource, so easily relinquished, is normally viewed only as a project constraint.

Salmon and steelhead must receive full and fair economic consideration. The economic benefits from this resource must be more fully defined, developed and made a purpose of water projects, in the same way that other beneficial resources have been protected and developed in California. For if water development interests can assert that flood control is for the good of the general public, is it any less valid to assert that a productive salmon and steelhead resource also benefits that same public?

These realities prompted the Advisory Committee to commit funds and effort to

develop a methodology for evaluating salmon and steelhead that is both comprehensive and fair. This methodology identifies potential economic benefits to California from conserving and restoring salmon and steelhead resource. These economic findings are contained in three

separate reports. The first provides a plain-language explanation of how economics can be used to measure salmon and steelhead benefits. The second report presents a detailed methodology for such evaluation. The third report applies the process to prospects for the restoration of salmon and steelhead in California.

The results of applying this new strategy are encouraging. The economic benefits of a strong salmon and steelhead resource are significant. If a program to double salmon and steelhead stocks in California were implemented, as described in SB-2261, net economic benefits of \$150 million per year would be achieved. Of this, \$30 million would be new profit to business. With full implementation, the total net profits could reach \$6 billion, with \$1 billion of this sum as profit to business. Some 8,000 new jobs would be created.

Restoration of this once-strong fisheries resource is a sound financial investment, one that can provide significant economic benefits to society. Conversely, the "cost" will also be high if this resource continues its decline. Earlier work by the Department of Fish and Game suggests that since (1968), California

has lost more than \$500 million in business revenue, and over \$1 billion in overall net profits because of declines in salmon and steelhead stocks!

Fair values, new court rulings offer hope for the fisheries

The State Water Resources Control Board has begun a three-year hearing concerning the allocation of water from the Sacramento and San Joaquin rivers to the federal Central Valley Project and State Water Project. The state's water adjudication responsibilities were carefully reviewed in a landmark 1986 State Court of Appeals decision. This so-called Racanelli Decision' cautions the Board to closely balance the values of diverting more water from the San Francisco Bay estuary against the instream values, especially the fisheries, which may be diminished by such diversions.

During the 1987 fact-finding phase of the State's Bay-Delta hearings, the California Department of Fish and Game provided testimony relating the amount of freshwater flow through the estuary to the health of the region's fish and wildlife populations. However, it provided virtually no testimony concerning the economic value of fish and wildlife. It is essential that the Department of Fish and Game develop accurate economic assessments of instream values in order to give the Water Board a more balanced view of the fisheries resource.

These values will correct the misconception that California water diversion projects inevitably create greater values than any they

might destroy. The assumptions about the value of irrigated agriculture, most of which is sustained by water diverted from the Sacramento and San Joaquin rivers, can now be tested with the University of California's agricultural resources computer model, CARM'. CARM has demonstrated that if water were withdrawn from the production of low-profit crops, including those which can be sustained only with the aid of federal price supports and crop subsidies, San Joaquin Valley farming could yield higher net profits while using substantially less water.

The state's resources, water in this case, must be conserved and must provide good returns to the people of California. If stream flow is being diverted to produce crops which now yield no net value to society (as the computer model suggests) and fishlife capable of contributing to the economy is being lost to such diversions, then such water has been misallocated. And so have California tax dollars! The state's balancing duty, so precisely described in the Racanelli Decision, has not been met.

An effort has now been made to begin development of a methodology that gives full and fair value and recognition to the state's salmon and steelhead fisheries. These economic values must be considered in the state's water allocation process. To achieve this, the Department of Fish and Game must become competent in valuing the resources and applying these values at hearings and proceedings in ways that conserve fish.

"If stream flow is being diverted to produce crops which now yield no net value to society... and fish life capable of contributing to the economy is being lost to such diversions, then such water has been misallocated...."

FINDINGS AND RECOMMENDATIONS: ECONOMICS



PHOTO: DEPARTMENT OF WATER RESOURCES

There is strong, worldwide market demand for California troll-caught salmon.

- Water developers, loggers, and ranchers constantly provide data underscoring the value of their particular operations to the state's economy. As underscored at the Bay-Delta hearings, the water developers have relied heavily on economic analysis to bolster their claims. The DFG, by contrast, has seldom utilized competent economic assessments in its actions to conserve salmon and steelhead trout resources.
- Recognizing the need to operate at the same level as other resource users, the Advisory Committee committed efforts and funds to develop a new methodology that ac-

cords a full and fair economic value to the salmon and steelhead trout resource. When properly evaluated, doubling California's present salmon and steelhead resources would produce a net economic benefit of \$150 million a year and would create 8,000 new jobs.

ACTION: The Legislature should direct the DFG to utilize and build on this new methodology. The DFG must become competent in understanding and using economic analysis to assist in conservation and restoration of the salmon and steelhead trout resources in its charge.